

### REMARKS

Claims 1-25 are presented for examination in this application, of which Claims 1, 12 and 23 are independent. Claims 1-25 have been amended to define still more clearly what Applicant regards as his invention.

In the Office Action, Claims 1, 2, 12, 13, 23 and 24 were rejected as being anticipated by U.S. Patent 6,282,584 (Hirsch); Claims 3-5, 7-11, 14-16, 18-22 and 25 were rejected as being unpatentable over *Hirsch* in view of U.S. Patent 5,640,577 (Scharmer); and Claims 6 and 17 were rejected as being unpatentable over *Hirsch* in view of *Scharmer* and U.S. Patent 6,115,724 (Booker).

As is discussed in greater detail in the present application, it is frequently desired to use the form overlay technique to provide preexisting form data (that defines a form), and to overlay on the form additional unfixed data (the information being filled in to the form). Existing software for such processing can accommodate multi-page forms, but at the cost of somewhat cumbersome operation. The present invention is intended to provide a multi-page form-generating capacity that is easier and less cumbersome to use.

More specifically, independent Claim 1 is directed to a composite form editing apparatus for editing form data, which is constituted of a plurality of parts forms, to be overlaid on print data. The apparatus of Claim 1 comprises storage means for storing composite form setting data which describes objects and a dependency relationship among these objects, where each object includes a page which constitutes the form data and a parts form which constitutes the page, and display means for displaying, on a display in accordance with the composite form setting data, the objects and the dependency

relationship thereof as a tree which connects image objects corresponding to the objects.

Also provided are determination means for determining a position where the image objects is dropped on the tree in accordance with an operation by an operator, and editing means for editing the description of the composite form setting data in accordance with the position where the image object is dropped determined by the determination means.

Among other important features set out in Claim 1 is that form data is edited according to an operation by an operator on a tree showing the composite form setting data describing objects and a dependency relationship among these objects.

By virtue of this feature, an operator can recognize parts forms constituting form data subjected to an operation by the operator, and also can perceive the dependency relationship among objects, e.g., the parts forms, visually. The operator can edit the composite form data referring, on a display, the tree showing a structure of the composite form data. As a result, operability and productivity of edition of the composite form data will be improved.

*Hirsch* relates to a visual business intelligence system for building applications. Fig. 12 shows a scene graph 480 including a tree control indicating a hierarchical representation of an application and editor windows in which elements corresponding to nodes in the tree control are shown. Each element can be edited by an operator.

*Scharmer* relates to a data processing system having plural terminals and a host system. The data processing system retrieves at least one datum from at least one data field displayed on the screen and automatically inserts the data in a predetermined

uncompleted field of the form. The partially or fully completed form is stored for later retrieval, updating and printing.

*Booker* relates to an apparatus for displaying double sided graphic image.

The apparatus of Claim 1 is believed to be patentable over those patents, for at least the following reasons:

First, the apparatus of Claim 1 edits the composite form data to be overlaid on print data, which is constituted of a plurality of parts forms. In comparison, *Hirsch* and *Book* fail to disclose such composite form data. Even if *Scharmer* teaches a form, that patent fails to teach composite form data constituted of a plurality of parts forms. The forms taught in *Scharmer* correspond, at the most, to the parts forms in Claim 1 that constitute the composite form data.

Second, the apparatus of Claim 1 comprises display means and editing means for displaying and editing the composite form data. In comparison, none of the cited documents comprises functional elements corresponding to the display means and the editing means recited in Claim 1, at the least because none of those documents discloses composite form data, or any means for handling such data.

As described above, the apparatus of Claim 1 handles a "composite form", which is not taught or suggested in any of the cited documents, and displays "on a display in accordance with the composite form setting data, the objects and the dependency relationship thereof as a tree which connects image objects corresponding to the objects". Thus, the apparatus of Claim 1 enables an operator visually to recognize which parts forms constitute a composite form that is being subjected to editing operation and which

relationship exists among the composite form and the parts forms. This effect is unique to the claimed invention and cannot be attained by one of ordinary skill, even from all three of the patents discussed above, taken in any combination (assuming such combination would be permissible).

Moreover, the apparatus of Claim 1, edits the composite form data by dropping the image object on display by means of determination means. No configuration to realize such function is taught or suggested disclosed in any of the cited patents.

Accordingly, Claim 1 is believed to be clearly allowable over those patents, taken separately or in any permissible combination (if there is any).

Independent Claims 12 and 24 are method and storage-medium claims, respectively, corresponding to apparatus Claim 1, and are believed to be allowable over the documents discussed above, for the same reasons as is Claim 1.

A review of the other art of record, and including the document cited in the Information Disclosure Statement submitted herewith, has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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